

Patent Claims

1. Device, comprising:
an electronics housing (1), which defines an internal space (2); at least one circuit board (4), which is arranged in the internal space and which is populated at least on a first surface with electronic components (5, 6), with the first surface facing a first wall (3) of the electronics housing (1) and the internal space (2) being filled with a potting compound (10) at least between the first surface of the circuit board (4) and the first wall (3), whereby heat given-off by the electronic components (4, 5) can be led-away to the first wall (3); characterized in that embedded in the potting compound between the circuit board (4) and the first wall (3) is an areal heat spreader, which faces the first wall (3) with its front face and the circuit board (4) with its rear face, and which has a greater thermal conductivity than the potting compound, whereby inhomogeneous temperature distributions over the surface (3) of the first wall can be reduced.
2. Device as claimed in claim 1, wherein the heat spreader (7) comprises a metal or ceramic layer, foil.
3. Device as claimed in claim 2, wherein the heat spreader comprises copper or aluminum nitride.
4. Device as claimed in claim 2 or 3, wherein the heat spreader (7) has a thickness of the metal or ceramic sheet of not more than 1 mm, preferably not more than 0.4 mm, and especially preferably between 0.05 mm and 0.2 mm.
5. Device as claimed in one of the claims 1 to 4, wherein the heat spreader (7) is essentially planar.
6. Device as claimed in one of the claims 1 to 4, wherein the first wall (3) is curved, and wherein the heat spreader (7)

is either planar or curved, and its degree of curvature is not stronger than the curvature of the wall (3).

7. Device as claimed in one of the claims 1 to 4, wherein the heat spreader exhibits a wave pattern, especially a beam-shaped wave pattern.
8. Device as claimed in one of the preceding claims, wherein the device is a measurement transmitter, especially for explosion-protected applications.